

BACKGROUND ART INFORMATION

TOSHIBA

The following information has been determined, to the best of TOSHIBA's ability, as possibly relevant to the describing and claiming of the invention of the subject case in a U.S. patent application. Based on this information and pursuant to 37 CFR 1.56(b), please prepare and file the proper Information Disclosure Statement or equivalent document.

★ PATENT NUMBER, PUBLICATION ; INVENTOR(S), AUTHOR(S) ; DATE etc.

United States Patent Laid Open No. 5953628

★ CONCISE EXPLANATION

This reference shows a method (or structure) of ^{the} formation of ~~sulfuric~~ Cu wires with a sulfuric treatment ~~against~~ ^{to} the surface.

JC927 U.S. PTO
10/025683
10/26/01

★ United States Patent Laid Open No. 5990008

★ This reference shows a method (or structure) of the formation of Cu wires below and equal 3ppm sulfuric concentrations.

★ Japanese Patent Laid Open No. PH10-12614

★ This reference shows a method (or structure) of the formation of a layer contained at least one of P, Al and S to promote the interfacial adhesion between Cu and dielectric.

PRIOR APPLICATION(S) OF INVENTOR(S) OR OF KABUSHIKI KAISHA TOSHIBA (ASSIGNEE)
APPLICATION NUMBER TOSHIBA REFERENCE COUNTRY

AGENT

MEMO

INVENTOR(S)
SIGNATURE & DATE

CHECKED BY



Yoshiaki Shimooka July 5, 2001

Noriaki Matsumaga July 5, 2001

PATENT ENGINEER'S COMMENT ON INVENTOR(S) INFORMATION OR PATENT ENGINEER'S INFORMATION

★

Same as above

CHECKED BY PATENT ENGINEER(S)
SIGNATURE & DATE

T. Koma

Kazushige Salto July 10, 2001

(to U.S. Attorney)

46B006395-1

TOSHIBA REFERENCE

46 G 32808

JAPANESE AGENT REFERENCE

Sheet

1 of 1

To: U.S. Department of Commerce
(PW FORM PAT-1449)

Patent and Trademark Office

Atty.
Dkt. No.

Client Ref.

290492

T7TA-01S1001

Applicant: Shimooka et al.

Appln. No.: New

Filing Date: December 26, 2001

Examiner: Unassigned

Group Art Unit: Unassigned

INFORMATION DISCLOSURE STATEMENT
BY APPLICANT

Date: December 26, 2001

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of

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U.S. PATENT DOCUMENTS

| Examiner's Initials* | Document Number | Date MM/YYYY | Name (Family Name of First Inventor) | Class | Sub Class | Filing Date (if appropriate) |
|-------------------------|--------------------|-----------------|---|-------|--------------|------------------------------------|
| | AR 5,953,628 | 09/1999 | Kawaguchi | | | |
| | BR 5,990,008 | 11/1999 | Koyama et al. | | | |
| | CR | | | | | |
| | DR | | | | | |
| | ER | | | | | |
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| | HR | | | | | |
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| | MR | | | | | |
| | NR | | | | | |

JCS27 U.S. PRO

10/025683



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FOREIGN PATENT DOCUMENTS

| ORIGINAL DOCUMENTS | | | | | | English Abstract | | Translation Readily Available | | |
|--------------------|----|-----------------|--------------|---------|---------------|------------------|----------|-------------------------------|---------|----|
| | | Document Number | Date MM/YYYY | Country | Inventor Name | | Enclosed | No | Enclose | No |
| | OR | 10-12614 | 01/1998 | Japan | | | X | | | |
| | PR | | | | | | | | | |
| | QR | | | | | | | | | |
| | RR | | | | | | | | | |
| | SR | | | | | | | | | |
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| | WR | | | | | | | | | |
| | XR | | | | | | | | | |

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

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| | YR | |
| | ZR | |
| | AAR | |
| | BBR | |
| | CCR | |
| | DDR | |

Examiner

Date Considered:

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.